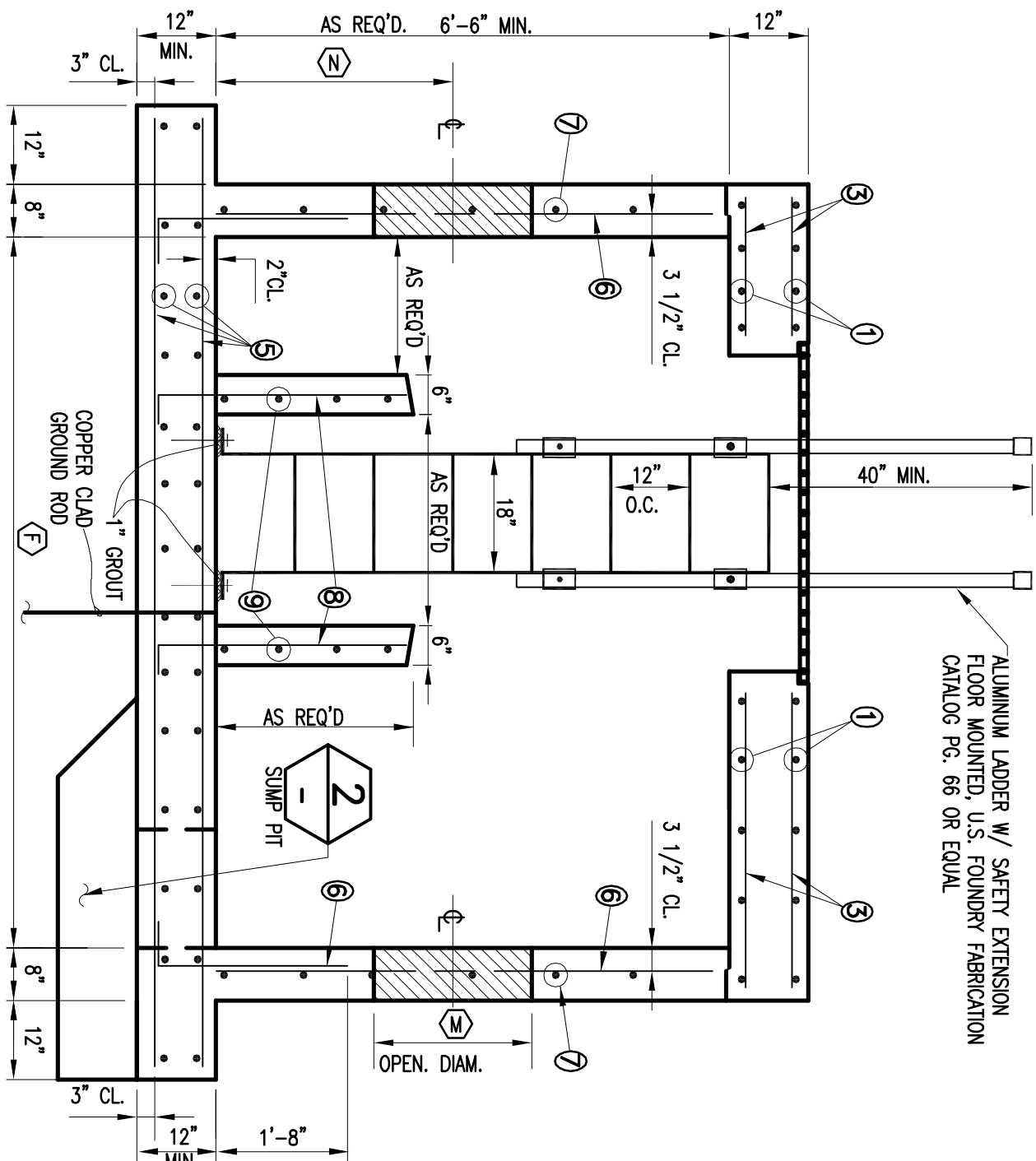
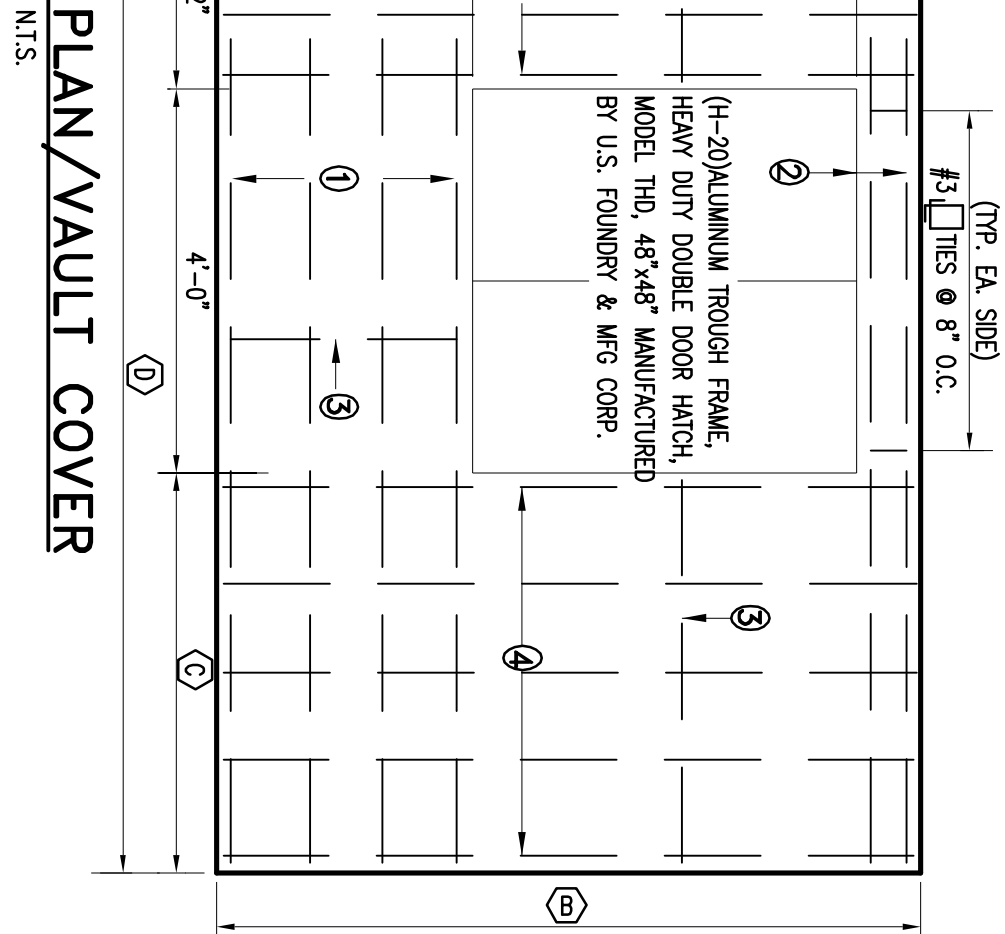
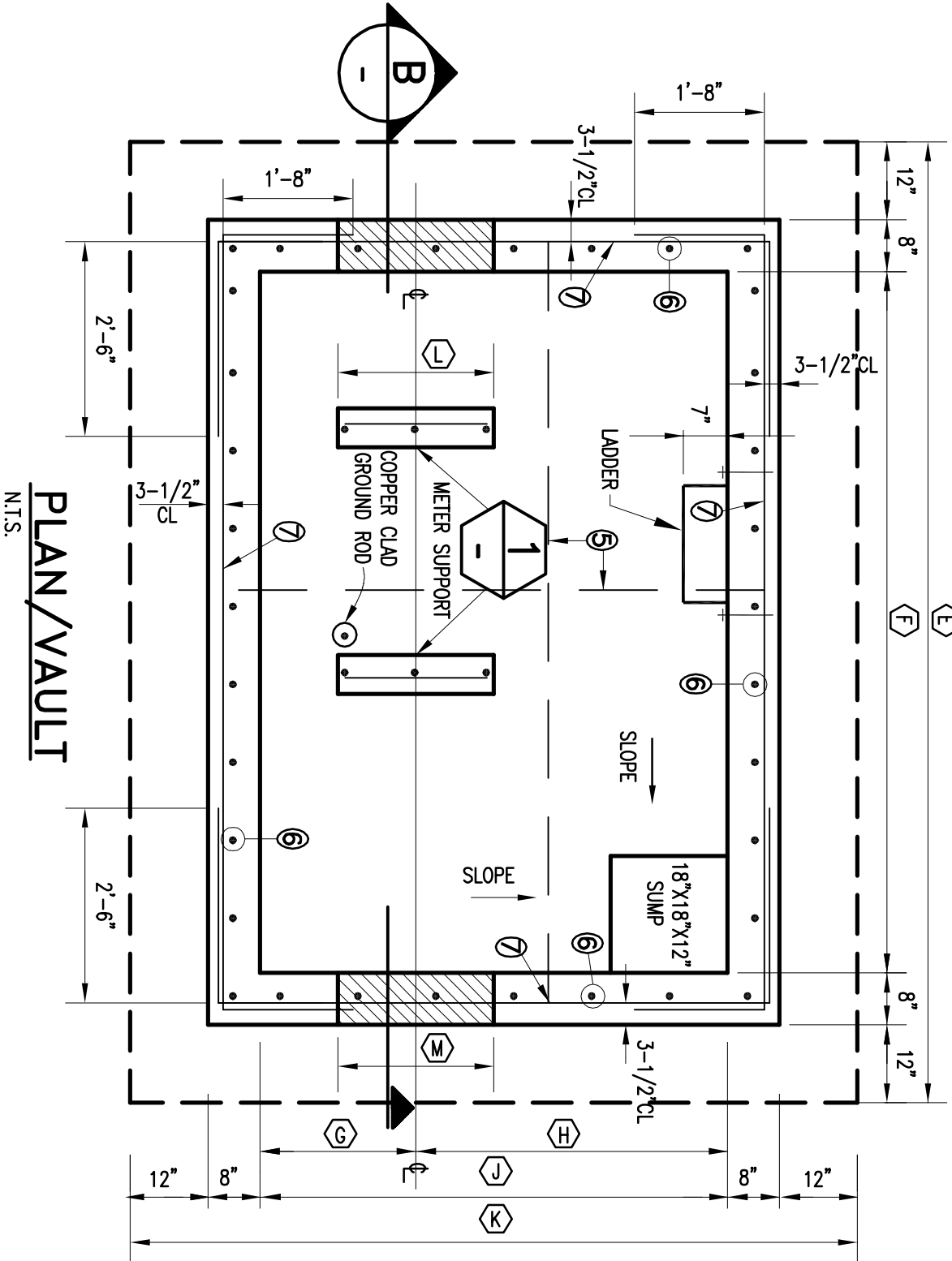


REINFORCEMENT SCHEDULE	
1	- 4 #5 T&B
2	- 2 #5 @ 4" T&B
3	- #4 @ 12" T&B
4	- 5 #5 T&B
5	- #4 @ 12" EA WAY T&B
6	- #4 @ 12" VERT.
7	- #5 @ 10" HORZ.
8	- 3 #4 @ 9"
9	- 4 #4



USER MUST SHOW ACTUAL OF THESE THREE VIEWS ON HIS DESIGN DRAWING

SECTION B



PLAN/VAULT

DETAIL 1

DETAIL 2

ADDITIONAL REINFORCEMENT AT WALL OPENING (TYP.)

MARK	DESCRIPTION	SIZE (in)	QTY.
1	TEE, M.I.	12 X 8	2
2	22.5" BEND, M.I.	12	2
3	REDUCER SMALL END M.I.	12 X 6	2
4	90° BEND, M.I.	8	2
5-6	PLUG VALVE M.I. W/M. 53	8	1
7	WALL PIECE, M.I. X THRUST COLLAR X M.I. : BELLS TAPPED FOR STUDS	6	2
8	CONNECTING PIECE, F.G. X P.E.	12	1
9-10	MECHANICAL ADAPTER	6	2
11	SOLID SLEEVE, M.I.	12	1
12	CHECK VALVE, SWING TYPE	8	2
13-14	S.S. 316 THD. OUTLET TAPPING SLEEVE, 1/2" X 1-1/2"	6 X 1-1/2	1
15A	VENTURI ENTRANCE CONE	12 X 6	1
15B	VENTURI RECOVERY CONE	6 X 12	1
16	MAGNETIC METER	6	1
17	SLUMP PUMP	SEE NOTES	1

LIST OF MATERIALS

LIST OF MATERIALS NOTES AND GENERAL NOTES.

Piping diameters and quantities in tables are shown for the purpose of illustration, assuming that a sample 12" x 6" venturi with a 6" magnetic meter is going to be installed.

MARK NUMBERS are as shown on the list of Materials.

MARK NUMBERS COULD BE SMALLER THAN MARK.

MARK 2: TO OBTAIN APPROPRIATE REDUCTIONS, THE METERS (VENTURI/MAG) MUST BE INSTALLED IN A FULL-AT-ALL TIMES DEPRESSION SECTION, WITH THE DROP ON THE SNIFFER MAIN EQUIVALENT, AT LEAST, TO ONE PIPE NOMINAL DIAMETER (IF THERE IS A REDUCTION ON PIPE SIZE), IF THERE IS A REDUCTION, THE DROP MUST BE THE AVERAGE OF THE TWO DIAMETERS. DROP = 1/2 (D1 + D2).

SPECIFY THE PROPER BEND ANGLE IN EACH CASE (11-25° - 22.5° or 45°), IN ORDER TO ALLOW SPACE BETWEEN THE TWO M.I. BELLS.

MINIMUM LENGTH, P.E. : 12' 0" long

14" to 24" 0" --> 17' long

30" to 48" 0" --> 21' long

MARK 3: TO OBTAIN APPROPRIATE DIFFERENTIALS (1.5 IN H2O) AT MINIMUM TOWNS, ON THE VENTURI METER, SOMETIMES A REDUCTION ON THE SNIFFER MAIN DIAMETER IS REQUIRED.

DIAMETER WILL DEPEND ON SIZE OF BR-PASS. SEE MARK 1.

MARK 5.6: PLUG VALVES 10" AND UP REQUIRE GEARED OPERATORS. SEE SS 19.1.

MARK 7: WALL PIECE, M.I. X THRUST COLLAR X M.I.

MINIMUM LENGTHS, FACE TO FACE OF BELLS W/ BELLS TAPPED FOR STUDS:

14" to 24" 0" --> 17' long

30" to 48" 0" --> 21' long

MARK 12 - Check Valve:

NEED WILL DEPEND ON DOWNSIDE CONDITIONS (e.g., GRABBIT DISCHARGE).

THIS SLEEVE NEEDED TO AVOID THE EVENTUAL LOSSEING, DUE TO CORROSION OF THE CORP STOP, IF THREADED DIRECTLY INTO THE PIPE.

MARK 15A, 15B:

SECONDARY METERS - VENTURI TUBE WITH METER SIZE THROAT.

TUBE SHALL BE FABRICATED 304 S.S. WITH 304 S.S. FLANGES, AND MANUAL VENT CLEANERS.

TWO PIECE ASSEMBLED SYSTEM COMPARE WITH METER FLANGE CONNECTION.

Desirable Beta Ratio = .8 = 0.054 (Max. allowed 8 = 0.07)

Min. Differential = 1.5 IN H2O - Max. 560 IN H2O

Meter shall be Model HT-C1, by FRS (Primary Flow Signal) or approved equal

*Beta Ratio: 8 = d. = Throat Size

0 = Line Size

MARK 16:

MINI METER - METER TYPE WITH 304 S.S. METER BODY AND FLANGES, NEOPRENE LINES AND 316 S.S. METER SEALS, 1/2" X 1/2" X 1/2" APPROX. MINIMUM DISH SUBMERGED ENCLOSURE CLASS, 46B METERMASTER RECORDER, 115/120 V. A.C. POWERED, SINGLE PHEN W/THROAT, 24 V. D.C. POWER SUPPLY, CRESSEL, 392, OR APPROVED EQUAL.

MARK 17:

SLUMP PUMP - HIGH HEAD, TURBINE MODEL 50SP2/275, 1 HP, 115 V. A.C., 60 HZ, 1 PH (SINGLE PHASE)

GENERAL NOTES:

1 - ALL PIPE AND FITTINGS SHALL BE DUCTILE IRON, CERAMIC EPOXY LINED, POLYETHYLENE ENCASED WHEN BURIED.

2 - RESTRAIN ALL MECHANICAL JOINT FITTINGS WITH MECHANICAL GLANDS OR APPROVED EQUAL.

3 - ALL WALL PIPES SHALL BE GROUDED WITH EPOXY NON-SHRINK GROUT AT WALLS AFTER COMPLETION OF INSTALLATION.

4 - ON EXISTING SEWER FORCE MAINS, METER SHALL BE INSTALLED ON A BRASS WORKED AROUND THE EXISTING MAIN WHICH WILL THEN SERVE AS BYPASS (PREVIOUS INSERTION OF ISOLATION VALVE).

5 - ALL RECEPABLES AND SWITCHES SHALL BE MOUNTED RAISED FROM WALLS.

ERASE THIS TABLE ON SPECIFIC APPLICATION.

VAULT DIMENSIONS TABLE (FT.-INCHES)													
METER SIZE (INCHES)	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(L)	(M)	(N)
8 x 4	3-4	8-0	2-8	8-10	10-10	7'-6"	2-8	4-0	6-8	10-0	1-6	1-8	2-4
10 x 6	3-4	8-0	3-4	9-6	11-6	8-2	2-8	4-0	6-8	10-0	1-9	1-10	2-6
12 x 6	3-4	8-0	3-10	10-0	12-0	8-8	2-8	4-0	6-8	10-0	1-9	2-0	2-6
14 x 8	3-4	8-0	4-4	10-6	12-6	9-2	2-8	4-0	6-8	10-0	2-0	2-2	2-8
16 x 8	3-6	8-2	4-10	11-0	13-0	9-8	2-10	4-0	6-10	10-2	2-0	2-4	2-8
18 x 10	3-6	8-2	5-6	11-8	13-8	10-4	2-10	4-0	6-10	10-2	2-3	2-6	2-10
20 x 10	3-8	8-4	6-0	12-2	14-2	10-10	3-0	4-0	7-0	10-4	2-3	2-9	2-10
24 x 12	4-0	8-8	7-0	13-2	15-2	11-10	3-2	4-2	7-4	10-8	3-2	3-2	3-0
30 x 16	4-8	9-4	8-10	15-0	17-0	13-8	3-8	4-4	8-0	11-4	3-8	3-8	3-4
36 x 18	5-0	9-8	10-4	16-6	18-6	15-2	3-8	4-8	8-4	11-8	3-8	4-2	3-8

VENTURI/METER DATA

* VENTURI SIZE (INCHES)	** VENTURI LENGTH (INCHES)	*** METER ASSEMBLY LENGTH (INCHES)	OVERALL LENGTH (INCHES)
8 x 4	25.9	9.8	35.7
10 x 6	31.5	11.8	43.3
12 x 6	36.1	11.8	47.9
14 x 8	41.0	13.8	54.8
16 x 8	45.9	13.8	59.7
18 x 10	47.0	17.7	64.7
20 x 10	55.7	17.7	73.4
24 x 12	64.6	19.7	84.3
30 x 16	77.2	24.3	101.5
36 x 18	97.1	27.5	124.6

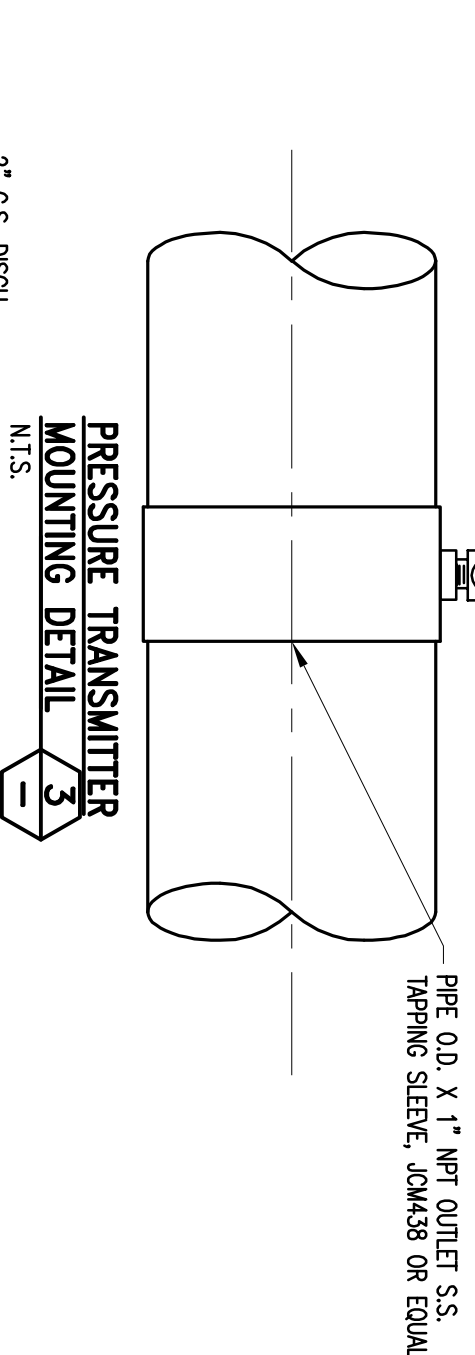
* FIRST NUMBER, VENTURI PIPE SIZE
* SECOND NUMBER, VENTURI THROAT/METER SIZE
* THIRD NUMBER, VENTURI THROAT/METER SIZE
* VENTURI LENGTHS OF VENTURI AND METER MAY VARY
* CHECK CHECK WITH MANUFACTURER
* VENTURI LENGTHS OF VENTURI AND METER MAY VARY
* VENTURI LENGTHS OF VENTURI AND METER MAY VARY

*** METER ASSEMBLY LENGTHS OF VENTURI AND METER MAY VARY
*** METER ASSEMBLY LENGTHS OF VENTURI AND METER MAY VARY
*** METER ASSEMBLY LENGTHS OF VENTURI AND METER MAY VARY

THRU METER ABOVE TO P.S. AND BELOW 25 FTS.

PRESSURE TRANSMITTER MOUNTING DETAIL

N.T.S.



NOTES ABOUT THE USE OF THIS DESIGN GUIDE:

- (1) THIS GUIDE REFLECTS THE MINIMUM DEPARTMENT DESIGN REQUIREMENTS. USER SHALL VERIFY AND MODIFY THE INFORMATION SHOWN HERE TO MAKE HIS DESIGN COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.
- (2) THE USER OF THIS GUIDE NEEDS TO MODIFY THESE SAMPLE DRAWINGS IN ORDER TO REFLECT HIS ACTUAL DESIGN CONDITIONS. SPECIAL ATTENTION MUST BE PAID TO ADDITIONAL NOTE NO. 4 ON THE GENERAL NOTES.
- (3) THE DEPARTMENT HAS THE RIGHT TO CALL FOR ADDITIONAL REQUIREMENTS.
- (4) FOR LARGER (OR SMALLER) METER SIZES CONSULT WITH METER SECTION AND ENGINEERING.

METER FACILITY NAME
OFFICIAL ADDRESS, FLORIDA 33100-0000

PROJECT TITLE
CONTRACT/ PROJECT No.

SEWER METER STATION DESIGN GUIDE
CASE OF 8" TO 36" W/VENTURI & MAG. METER
PIPING, STRUCTURAL AND DETAILS

MIAMI-DADE COUNTY
Water Engineering Division

WATER AND SEWER DEPARTMENT
ENGINEERING DIVISION
3077 SW 38TH AVENUE
MIAMI, FLORIDA 33146-2221
mwater@dc.gov

DRAWING HISTORY
RELEASED FOR REVIEW 00%
REVIEW 00%
PERMIT
BID
AS-BUILT

REVISIONS
No. DESCRIPTION DATE BY

APPROVALS
PROJECT MGR. HS
DESIGNED HS
CHECKED JBF
DATE OCT. 17, 2016
SCALE: AS NOTED

SHEET MS-1
DWG. No. S-26263-D